

office, setting forth that the Master-General had given orders for the execution of the block plan of the metropolis, in conformity with the request of the Commissioners of Sewers.

The following recommendations of the General Purposes Committee were agreed to:—

That 526 feet of 18-inch sewer be built in Bowling-green Walk, Piccadilly-street, estimated 150*l*.

That 7,000 ft. of 3-ft. sewer be built from Lower-road, Islington, to Holloway, and that 2,850 feet thereof, estimated at 2,500*l*, be commenced as soon as a contribution of 2,000*l*, promised by the Birmingham and Dock Railway Company, shall have been paid.

That 400 feet of 18-inch sewer be built in Laystall-street, estimated at 90*l*, conditionally.

Messrs. Acraman, Ashley, Campbell, and Lee, were summoned for irregular drainage in Vauxhall-walk, Lambeth. It appeared from a long discussion, that the surveyors of highways had for a long time past been in the habit of putting down large brick drains in this district, chiefly constructed without the use of mortar, and that the inhabitants had in many cases used them for all the purposes of sewers, thereby entirely superseding the functions of the commissioners.

Messrs. Acraman and Jermyns produced local acts, and contended that this court had no jurisdiction in the matter. This position was unanimously opposed by the commissioners, and it was finally determined that Mr. Acraman (surveyor of highways), should be fined 50*l*, such fine not to be levied until after the next court, when, if the jurisdiction of the court was acknowledged, and a promise given not to resort to such practices in future, the fine would not be exacted. Mr. Acraman said he would lay the whole case before the Board.

A conditional fine of 10*l* was also given against Mr. Gwynn, of the Welworth, for irregular drainage.

### Miscellaneous.

**TUBULAR BRIDGES.**—In consequence of certain claims made by Mr. R. Stephenson, in a letter to the *Manchester Guardian*, Mr. Fairbairn, "lamenting the necessity which existed for the friendly interference" of Mr. Bateman, says that, in justice to himself, he must "maintain that the working out of the idea, and the development of the principle, as well as the greater portion of the construction," are the results of his labours. "In corroboration of these facts," he adds, "I may further state, that the original idea [which he admits Mr. Stephenson to be entitled to claim], was a cylindrical tube, to be supported by chains, to which I was always opposed, and which, I think, can be proved would not have succeeded. In fact, it was only by a long series of inductive reasoning, founded upon experimental research, that the present strength and form of the Conway and Britannia tubes were established. That these researches are my own, and that the conclusions based upon them have been acted upon, cannot be denied; and I am satisfied that, if Mr. Stephenson would reconsider the matter, and allow his feelings fair play, he would admit the fact. The publication of the correspondence, should such a step be found necessary, will, however, prove the accuracy of these statements, whether admitted now or not."

**WEAR OF LEAD.**—Sir: Seeing in your valuable work, a notice of Professor Donaldson's remarks on lead, and lead-laying, I have enclosed a piece of lead, a fair sample of the state of a whole gutter, which has been laid but eleven months, between two copper flats in the neighbourhood of Belgrave-square. The flats are surrounded by a brick wall, which is composed and coloured, and no water passes over the gutter from any other building. You will perceive the lead is destroyed in a similar manner to, and presents the appearance of, the bottom of a lead cistern which has not been cleaned for a long time. From a slight settlement of the roof, the gutter had not a proper current, and I find the lead most damaged where the water laid. Perhaps some of your scientific friends may think it worth noticing, and assign a cause for its destruction in so short a time, that the building-public may guard against a similar misfortune (it having caused a great portion of the roof, which is nearly new, to be disturbed).

JAMES JACKSON.

Broad-street, Golden-square.

\*. The two metals, lead and copper, being in contact, would produce a galvanic action, which has doubtless assisted in the destruction of the lead.

**PROJECTED WORKS.**—Advertisements have been issued for tenders by 7th July, for rebuilding the chancel of Salwarpe Church; by 27th June, for repairing the spire of Hinckley Church; by 23rd, for repairing and repewing the parish church of East Norton, Leicestershire; by 26th, for the erection of a rectory-house at Hildersham; by 21st, for the building of St. Ann's Church Girls' Schools at Leeds; by 21st, for the erection of a school and master's house at Newmarket; by 23rd, for building a farm-house at Alstonby (Carlisle); by 24th, for repairing the Russell Institution, Great Cornam-street; by 26th, for altering and enlarging the Long-Ashton Union Workhouse; by 20th, for erecting vagrant wards, fever wards, workshops, &c., at the Orsett Union Workhouse; by 21st, for the erection of fever wards at the Linton Union Workhouse; by 24th, for bricklayers', carpenters', smiths', plumbers', and glaziers' works for one year in St. Marylebone (parishioners only as contractors); by 24th, for a supply of Guernsey, Groby, or Whitey chipping, &c., for St. Marylebone; by 3rd July, for a supply of 18,000 sleepers of larch, hactmatac, or yellow pine for the Shrewsbury and Wellington joint line of railway; by 5th July, for repairing and paving foot and carriage ways in Westminster; by 24th June, for a supply of flints, gravel, and hogging for the parish of St. Marylebone; and by 20th, for painting at the Billericay Union Workhouse.

**EMIGRATION.**—The *Port Philip Herald* gives the following scale of wages now obtainable in New South Wales:—"Mechanics—watchmakers, 2*l*. 10*s*. per week; beam-men, 2*l*. 10*s*.; carpenters and joiners, 6*s*. and 7*s*. per day; bricklayers, 7*s*. and 8*s*.; stone-masons, 7*s*. and 8*s*.; stonecutters, 7*s*. and 8*s*.; plasterers, 6*s*. and 7*s*.; bricklayers' labourers, 5*s*.; blacksmiths, 7*s*. and 8*s*.; painters and glaziers, 6*s*. and 7*s*.; cabinet-makers, 6*s*. and 7*s*.; sawyers, 2*l*. 2*s*. per week. With regard to the expense of the necessities—Bread, the 4 lbs. loaf, 7*d*.; beef, 2*d*. per lb.; mutton, 2*d*. per lb.; tea, 1*s*. 8*d*. per lb.; and sugar, 3*d*. per lb. Single men could obtain board and lodging at 10*s*. per week." Lieut. Waghorn, who has done so much to promote internal communication, has just now published a letter to Earl Grey, wherein, in his energetic and enthusiastic manner, he asks Parliament to vote twenty millions to promote emigration, especially from Ireland, to Australia, where labour is much wanted. All classes of men are beginning to look to emigration on a large scale as a step that should be warmly promoted.

**THE TIMBER TRADE.**—Messrs. Chaloner and Fleming, of Liverpool, in their monthly circular, dated 31st May, observe, that as to the effect of the alteration of the timber duties, in that locality at least, the consumption of both of the staple articles of consumption, namely, colonial and Baltic fir, in the log, has been very largely increased, whilst a most astonishing impulse has been given to the production of the colonial spruce deal, by which the Baltic deals have been in a great degree superseded. The natural effect of stimulated production, they remark, has been an accumulated stock abroad, by which prices have been reduced, and this country is now about to reap the full advantage contemplated by the originators of the measure for the abolition of the duties on colonial wood; the pressure under which the timber trade is suffering being clearly traceable to the general depression of trade consequent on last year's monetary derangements. Before the alteration was mooted, Quebec yellow pine was sold at 13*d*. per foot, when Baltic ruled at 2*s*. 2*d*. per foot. At present the latest sales have been at 13*d*. to 14*d*. per foot for the former, and 16*d*. to 18*d*. for the latter. The prospect of demand and importation this year, however, is not encouraging. The business in mahogany during the month has been considerable, but at declining prices, shewing that the general depression has at length reached this branch of trade. Honduras averaged 3*d*. 15 32 per foot; the larger wood 5*d*. per foot. A new import from the Spanish Main, of 39 logs, was sold at 4*d*. per foot.

**THE COMPRESSED-AIR LOCOMOTIVE.**—It is long since the idea was first entertained that atmospheric air, compressed, might be made to act on a locomotive like the wound-up

main-spring of a watch; but the same tendency of the power to vary in intensity required some analogous means of regulation, and the want of these means has hitherto constituted an insurmountable obstacle to the practical adoption of this portable and safe, as well as powerful, agency. The Baron von Rathen, however, who has been long and arduously engaged, like another Boreas, in bottling up the winds for future use, has at length succeeded, it is said, in overcoming the great obstacles to the management of air compressed,—amongst which obstacles must also be enumerated the heat liberated in compression and absorbed in re-expansion. For the withdrawal of the first, he has invented an apparatus for cooling the compressed air; and for the restoration of the last, an apparatus for exposing it, while expanding, in thin films, to the natural heat of the atmosphere. The inventions, which are patented, also comprise a hydraulic pump for compressing the air, with pistons so acting in mutual relationship as to be continually in a different elevation of the stroke, and thus to obviate the inequality and loss of power in compression. Means for the regulation of the degree of working pressure have been also provided; and a locomotive for common roads, on these principles, is being built at the College of Civil Engineers, Putney.

**FRENCH SCENERY AT DRURY LANE.**—We went to Drury-lane Theatre on Monday night, for the purpose of seeing and speaking of the scenery, painted by French artists, which, as we understood, had been brought there. A vulgar, senseless, and most illiberal uproar, discreditable in the highest degree to the parties concerned, drove us out,—drove us out by the shame we felt in seeing a section of Englishmen so demean themselves. We must wait till they recover their senses.

**PANCRAS WORKHOUSE COMPETITION.**—A correspondent wants to know if "the committee of the St. Pancras Workhouse appointed to examine the designs for the workhouse, have yet completed their giant task? and, if so, whether they have committed the rejected designs to the purpose of lighting the office fire? or whether they are still accessible to their owners? as no report of them has yet appeared from the Secretary."

**ROME AS IT IS.**—On Thursday in last week Mr. Buckingham gave the last lecture, at the Western Literary Institution, of a course on Rome as it is, and brought the subject very forcibly before the minds of his auditors. He treated of things of which every one is supposed to know, but of which many are, in truth, quite ignorant, and gave some interesting particulars of St. Peter's, the Vatican, and the public fountains.

**QUEEN'S COLLEGE, BIRMINGHAM.**—Steps are being taken to secure to the inhabitants of the midland counties the advantages of a sound yet not expensive university education, with the degrees of bachelor of arts and master of arts, bachelor of civil laws and doctor of civil laws, at the University of London. A department of civil engineering will be formed, and the course of instruction will embrace all the principal subjects which are essential to the scientific engineer; and it will likewise be recommended that the students in this department should proceed to the degree of B.A.

**THE BUILDERS' BENEVOLENT INSTITUTION.**—We wish to direct our readers' attention to the anniversary dinner of this excellent charity, which is advertised to be held on the 19th, and to urge them to take that share in it which the importance of its object demands. We will seek an early opportunity to speak again of it, by which time we shall hope to see the list of stewards doubled at least.

### TENDERS

For Sixteen Houses to be built for the Peckham Building Society (opened June 14th). Mr. G. Smith, Architect:—

Little and Son	£10,715
Burton	10,530
Holland	10,455
Curtis	10,594
L'Amson	10,110
Brown	9,957
Grimdell	9,476
Wilson	9,990

### MEETINGS OF SCIENTIFIC BODIES

Held during the ensuing week.

TUESDAY, June 20.—Institution of Civil Engineers, 8 p.m.  
FRIDAY, 23.—Archæological Association, 8½ p.m.; Architectural Association.